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Sociological factors in Reefs-Santa Cruz language vitality: a 40 year retrospective

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This article looks back over 40 years of language and culture change in the region of the Solomon Islands where the four Reefs-Santa Cruz (RSC) languages are spoken. Taking the works of Davenport and Wurm as a starting point, we list specific linguistic changes we have identified and discuss the sociological factors which have both promoted and undermined the vitality of these languages. We then determine the level of vitality for each language through the recently proposed Extended Graded Intergenerational Disruption Scale — EGIDS (Lewis and Simons 2010), and based on our results for the RSC languages, we provide a short evaluation of the usefulness of EGIDS for prioritizing language documentation efforts.

Keywords: *Solomon Islands; Solomon Islands Pijin; Reefs-Santa Cruz; Natügu; Nalögo; Nagu; Äiwoo; EGIDS; language documentation; language vitality.*

1. Introduction

Forty years ago, two authors wrote extensively about the anthropological and linguistic situation in the RSC language communities. Davenport (1962, 1964, 1975, 2005) described the cultural and sociological properties of both the Santa Cruz and Reef Islands cultures, Figure 1, including a description of trade relationships within the Santa Cruz archipelago. At the same time Wurm (1969, 1970, 1972, 1976, 1978) analyzed the linguistic characteristics of the RSC languages. In his later work, Wurm (1991, 1992a, 1992b, 2000, 2002, 2003) also discussed language vitality in the region. Taking 1970 as a focal point for their early descriptive work, 2010 finds us forty years later with critical changes in the languages and cultures of the four RSC languages. In fact, Davenport (personal communication) expressed amazement that Santa Cruz could have

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progressed from the fairly isolated peoples he interacted with during his fieldwork in the 1960s and 1970s to their having radio email access around 2000. Internet access came in by 2008. Looking at it a different way, the 20 year olds who interacted with Davenport and Wurm are the 60 and 70 year olds of today, people who have witnessed the effects of becoming part of the global community.

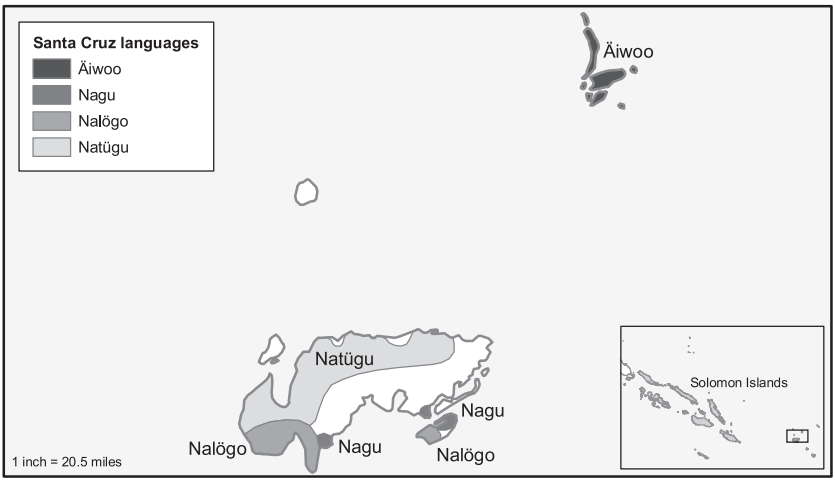

Figure 1. *Language areas on Santa Cruz and Reef Islands*

The description and analysis in this article is provided by five authors who have undertaken fieldwork in the RSC languages within the past decade, thereby providing the necessary perspective for commenting on sociological components of language change.[1] The socio-cultural dynamics for these languages have a number of differences, in spite of their shared geographic, linguistic and social factors. We show that the most significant cause of language simplification and loss is the increased use of Pijin, an English lexifier creole, as a language of wider communication (LWC). We discuss how education, intermarriage, shipping, globalization and a breakdown of older cultural norms intersect to create an environment conducive to this shift. We also show how vernacular literacy efforts contribute to language health for Natügu.

The basic organization of the article is as follows. We start by placing the RSC languages within their larger context both in the country and in Temotu Province, providing introductory material regarding measurement of language endangerment and phonological analysis. Then each of the four RSC languages — Natügu, Nalögo, Nagu and Äiwoo — is discussed in turn with regard to six characteristics: intra-group dynamics, language contact, domains of language

use, culture change and culture shock, linguistic change and implications for the long term health of each language. Our conclusion reiterates what we see as the critical factors affecting language health in these four languages, both negatively and positively, over the past 40 years. We evaluate the EGIDS metric, showing that it fails to adequately account for a long term prognosis for language vitality.

2. The Solomon Islands national context

As a former British Protectorate, English is the Solomon Islands' official national language. Historically, Solomon Islands Pijin developed when the indigenous languages came into contact with English, and Pijin has become the language of wider communication in the country. There is a split in language use by speakers nationwide, with English used for reading and writing and Pijin used for speaking in the contexts of education, business, church and government. In Honiara, which has a population of better educated Solomon Islanders who have regular contact with native speakers of English, the Pijin spoken contains many more English language borrowings, and it would not be understood in the provinces.

The country has also inherited a British-style school system, built toward English as the language of instruction. The primary grades are "Pre" plus classes one through six. Historically, parents had to pay school fees for their children's education. But starting in 2009, school fees for all students through Form 3 have been waived. The school fees for forms four through six remain in effect. It remains to be seen whether this will have positive effects on vernacular language maintenance.

During class six, students take a national exam which determines both whether they get a place in one of the secondary schools in the country, as well as whether or not that place is in one of the schools with a better academic reputation or not. Secondary education is most often away from the village context, at boarding school, where there is greater contact between students of different languages and islands. Students start school at around age seven and generally continue through class six or form three, with another exam during form three to determine advancement beyond that point or not. A few continue through forms five and six and a handful have an opportunity for post-secondary education, often overseas. The other options for secondary-level schooling are community high schools for which the students live at home and church-run rural training centers which give instruction in trades and small business principles.

Linguistic changes in the RSC languages have resulted from the increased contact with other speakers, in part due to speakers of these Temotu languages

Table 1. *First language census data for speakers over 5 years**

Language	1976	1999	+/− %
Natügu	1,658	4,085	+146
Nalögo	1,045	1,541	+47.5
Nagu	238	206	−13.4
Äiwoo	3,961	7,926	+100
Pijin	1,527	20,038	+1225

* DeBruijn and Beimers (1999). The 2009 census figures have not yet been released.

pursuing secondary education in other provinces, as well as an increased frequency and reliability of transport which allows people from Temotu Province greater access to Honiara. Meanwhile, Honiara has a growing urban population, with a concomitant increase in marriage between people of differing languages, all culminating in the startling rise in Pijin as a first language as illustrated in Table 1. As a result, whether a family is resident in the home area of one parent or in Honiara, children of mixed-language marriages learn the language of one or both of their parents increasingly less frequently, learning Pijin instead. Perhaps even more significant is the practice, probably not uncommon, in which married speakers of the same vernacular who live in Honiara use Pijin more commonly at home than the vernacular. It is clear that some descendants of RSC speakers are growing up speaking Pijin rather than the language(s) of their parents.

3. Reefs-Santa Cruz languages and their Temotu Province context

The RSC languages are spoken in Temotu Province of the Solomon Islands, about 400 miles east of the national capital, Honiara, located on the island of Guadalcanal. For many years before and after Solomon Islands independence from Great Britain in 1978, this region in the remotest eastern part of the country was isolated from the rest of the country due to distance and infrequent shipping services. Contact has increased though, as shipping and airline flights have become more regular, and as students have more routinely attended secondary schools in other provinces.

The RSC languages have the reputation of being among the most linguistically complex in the country, and that may be accurate. These languages have been identified as aberrant Oceanic languages of the Temotu subgroup of Proto Oceanic (Ross and Næss 2007) with supporting evidence from the verb complex (Næss and Boerger 2008) and passive construction (van den Berg and Boerger 2011). The other branch of the Temotu subgroup is made up of the six languages spoken on Utupua and Vanikoro.[2] As Temotu is assumed to be a first-order subgroup of Oceanic, the ancestor of today's Reefs-Santa Cruz,

Utupua, and Vanikoro languages must have arrived in the area well over 3,000 years ago, a date confirmed by archaeological excavations in Lapita sites on the Reef Islands and on Santa Cruz Island (Spriggs 1997). While remaining isolated from other Oceanic languages for most of this period, the Temotu languages have been in regular contact with each other historically, as described by Davenport (1962, 1964) focusing on their shared trade network.

In addition, Polynesian speakers began moving into the area within the last 700–1,000 years, with evidence of permanent Polynesian settlement in the far eastern part of Temotu beginning around 1200 AD (Kirch 2000: 144). As a result, the indigenous Melanesian speakers of the Temotu subgroup have also had varying amounts of contact with the Polynesian speakers of other Oceanic languages, namely Vaeakau-Taumako in the Reef and Duff Islands, and Tikopia and Anuta on the two islands of the same name further east in Temotu Province, leading to a significant number of borrowed Polynesian lexical items in the RSC languages.

Based on linguistic and cultural considerations, the three Santa Cruz languages — Natügu, Nalögo and Nagu — had a common ancestor. A cultural form shared by all three Santa Cruz languages is the *nelâ* dance with its associated music and lyrics. We are unaware of the time depth of the actual splits in the languages, but as early as the mid-1970s, most singing of traditional songs was done in the Bënwë dialect of Natügu, which contributed to its being the variety targeted for language development (Simons 1977). It was thought that if people knew it well enough to sing the songs, then it would also have the greatest number of people on the island who could understand it.

However, this turned out to be overly optimistic. While the older men who are the dance's performers had learned to understand it, the majority of Nalögo and Nagu speakers do not understand Natügu (Boerger and Zimmerman, forthcoming). In fact, many Natügu speakers also cannot understand the traditional songs due to the archaic language used in many of them — lyrics which may even be archaic for the singers themselves. Furthermore, many young people are rejecting the traditional forms in favor of English and western music.

Similarly, the long standing use of Natügu for the traditional music lyrics (Davenport 1975; Boerger 2009) has led to a loss of traditional songs in the Nagu language. Even though there are those who can remember a few songs in Nagu, most songs in the Nagu language area — whether in an indigenous or western music style — are in another language, Pijin, English, or Natügu. Finally, in spite of most people in the Nagu area today saying that it is difficult to make songs and sing in Nagu, there have been a number of Christian songs translated into the language, so it is not completely impossible, merely infrequent and unusual. Given that song lyrics have been a critical component of Natügu literacy lessons (Boerger 1998), the Nagu lyrics having been abandoned in Nagu areas indicates significant cultural and linguistic erosion.

4. Measuring language vitality

In this article we use Lewis and Simons' (2010) proposed revision of Fishman's (2001) 8-level Graded Intergenerational Disruption Scale (GIDS).[3] In it they integrate Fishman's scale, the UNESCO 6-level scale of endangerment (Brenzinger et al. 2003), and the *Ethnologue's* (Lewis 2009) 5-criteria metric, culminating in a 13-level scale, which they call the Expanded GIDS, or EGIDS. They include the UNESCO categories which correspond to each of the thirteen levels in the far right column of Table 2.

In their discussion, Lewis and Simons provide five diagnostic questions whose answers help assign a numeric level and a label for a given language:

1) What is the current identity function of the language?
2) What is the level of official use?
3) Are all parents transmitting the language to their children?
4) What is the literacy status?
5) What is the youngest generation of proficient speakers?

Many tools have been designed to evaluate language vitality, such as those mentioned above — GIDS, UNESCO and *Ethnologue*. For the sake of uniformity and ease of comparison between languages, it is useful when the majority of researchers use the same tool. We support the use of EGIDS for this purpose, because it integrates the aforementioned tools, making it more robust and suited for evaluation of both safe and endangered languages. We use the

Table 2. *EGIDS numbers relevant to RSC situations*

Expanded Graded Intergenerational Disruption Scale (adapted from Fishman 1991)			
Level	Label	Description	UNESCO
3	Trade	The language is used for local and regional work by both insiders and outsiders.	Safe
4	Educational	Literacy in the language is being transmitted through a system of public education.	Safe
5	Written	The language is used orally by all generations and is effectively used in written form in parts of the community.	Safe
6a	Vigorous	The language is used orally by all generations and is being learned by children as their first language.	Safe
6b	Threatened	The language is used orally by all generations but only some of the child-bearing generation are transmitting it to their children.	Vulnerable
7	Shifting	The child-bearing generation knows the language well enough to use it among themselves but none are transmitting it to their children	Definitely Endangered

EGIDS metric at the end of the discussion of each of the four RSC languages to indicate the language vitality of each which correlates with the sociolinguistic factors we find to be at work in the region.

5. Phonemic status of ambiguous segments and sequences

There are a number of ambiguous segments and sequences in the RSC languages, including voiceless nasal release of voiceless stops, aspiration, labialization and palatalization. Linguists have not been in agreement about how to interpret them, and it may very well be that similar phonetic inventories will be analyzed differently for the four languages. One's own analysis, as well as which of Wurm's analyses is used, affects how much the languages can be said to have changed. For the purposes of this article we generally cite Wurm's (1969) work, in which he included charts for all of the relevant languages.[4]

In our phonemic charts below, these ambiguous sounds are included in all of the charts for the languages which have them either phonetically, phonemically or as sequences, in order to facilitate ease of comparison between the languages today and with the earlier data supplied by Wurm. Orthographic symbols used in the article are indicated in parentheses in the charts.

6. Natügu (ISO code[5] [ntu])

6.1. *Dynamics within the Natügu language group*

The island of Santa Cruz is home to the three related languages, Natügu and Nalögo which are very close and Nagu which is slightly more distant from the other two. Natügu is spoken in the northern part of Santa Cruz Islands, primarily Graciosa Bay, while Nalögo is spoken in the south and southwestern areas. There is a dialect chain wrapping around the western end of the island with Natügu at one end and Nalögo at the other, these endpoints not being mutually intelligible. Natügu and Nalögo have therefore recently been recognized as two separate languages by the ISO (Boerger and Zimmerman, forthcoming). As the largest of the three languages, Natügu is not in any danger from contact with the other two.

Within the Natügu area on Graciosa Bay, there are 15 villages having four regional dialects of Natügu. The four Graciosa Bay dialects are labeled by the primary village speaking each of them. *Balo* represents three villages at the bottom of the bay, *Nep* represents the next two villages to the north, *Lväpä* represents four central villages, and *Bënwë* represents the six northernmost

villages on the bay, from Nööle to Uta (Boerger and Zimmerman, forthcoming). The village of Malo, on Temotu Neo, is easily mutually intelligible with the Bënwë variety, but it has been seen to be more conservative in its rate of change.

In addition to the geographical variation within Natügu, there is also variation within each geographical dialect as a result of age. We have identified three age groupings — young (up to age 30), middle aged (31–59), old (60+) — each with their own patterns of speech. In actuality, there is probably a fourth age-dialect composed of those over 70, who retain vocabulary unknown to even the next younger group. In addition, males are normally more mobile and therefore more competent in second and third languages (Boerger 2007). Reasons for these groupings will be discussed in Sections 6.3 and 6.4.

6.2. *Natügu language contact situation*

Unlike many language communities from elsewhere in the country, there is no concentrated area of Natügu speakers either in Honiara or in settlements elsewhere on other islands. This is significant in that it may contribute towards young men staying in Temotu who would otherwise move to a Santa Cruz community in Honiara. It may also explain why there are few exogamous unions in the language area — most are between Natügu speakers. Of the marriages with which we are acquainted, we are unaware of anyone living on Graciosa Bay who is married to a Nagu speaker, though a number are married to Nalögo speakers. The remainder of Natügu speakers who are married to speakers of other languages is fairly evenly divided between marriage to speakers of Äiwoo (Reefs) or Vaeakau-Taumako, the Polynesian outlier of the Reef Islands, plus a few marriages to people from islands outside Temotu Province. Traditionally, Reef Islands women were given in marriage to Santa Cruz men in exchange for red feather money, which was the currency of exchange for the entire archipelago (Davenport 1964: 63). A Reefs woman we know who married a Natügu speaker is only one of a handful of outsiders who have learned to speak it. Most marriages in the area are between Natügu-speaking couples.

Natügu speakers of Graciosa Bay have significant day-to-day interactions with speakers of other languages due to their access to Lata, the capital of Temotu Province. In Lata there are government workers from other provinces, speakers of English and other languages who serve on the RAMSI (Regional Assistance Mission to the Solomon Islands) peace-keeping force, as well as speakers of a number of languages elsewhere in Temotu Province, and Nalögo and Nagu speakers who come to Lata to do business. In addition, there are Tikopia and Äiwoo settlements on Santa Cruz Island. Given that scenario,

adult Natügu speakers have a higher frequency and degree of contact with English and Pijin speaking outsiders than do the speakers of other RSC languages. And at the same time, as one of the two larger languages in the RSC group, Natügu speakers also have extensive contact with each other, and many pursue their daily activities without going to Lata on any regular basis. All Natügu school children have regular exposure to English and Pijin at school.

6.3. *Domains of Natügu language use*

In discussing domains of language use it is critical to distinguish between oral and written language use, as well as between passive and active commands of the language. The variety of factors discussed below is taken to be representative of the Natügu-speaking population at large, with individual exceptions to the generalizations. These personal observations are based on nearly twenty years of fieldwork and residence in the area.

The three languages in active use in the Natügu-speaking areas are Natügu, English and Pijin. The majority of the population understands and speaks Natügu, and a growing number also read it, with a handful who are also comfortable writing it (Boerger 2007).

Comprehension of spoken English is rather low, while comprehension of the written form is slightly higher. For people who understand Pijin, comprehension of English is fairly high, but most who speak Pijin do not also read or write it, although this is changing due to Pijin literacy efforts.

Both male and female young people can be grouped together because there is little difference between the genders with regard to these competencies. There is a striking difference, however, in the middle aged and older women's brackets, in that they are the most limited in the number of languages in which they are competent. They do not normally speak Pijin or English and they are most often illiterate in Natügu. The young people and most males have some degree of competence in English, due to it being the language of education. For the majority, though, their command of English is superficial, at best. While numerous people have the skill of "reading" English, they do not generally understand what they have read.

Natügu is used in the lowest status domains, Pijin in the next, and written English in the highest domains of education, business and government. While English has normally been used to write letters home, which then have to be translated for family members, a growing handful of speakers now use it to send email messages back and forth between Santa Cruz and Honiara. And more significantly, in recent years, Natügu has replaced English as the primary language of the Church of Melanesia on the island, such that congregations

have moved or are moving toward a fully Natügu service (Boerger 2007), with announcements, prayers, songs, and liturgy in Natügu. When the previous bishop, who does not speak Natügu, celebrated holy communion he recited his parts in English, but encouraged congregations to respond in Natügu.

6.4. *Culture change and culture shock in Natügu language areas*

The situation on Santa Cruz forty years ago can be viewed as a kind of diglossia *without bilingualism* (Fishman 1967), in which a single population demonstrated a clear compartmentalization between high (English) and low (Natügu) languages, with Natügu used for some functions, and English used for others, but without significant bilingual proficiency in English. But as we show for each of the RSC languages, the access to English, and later Pijin, through education has caused Pijin to encroach on domains formerly reserved for the vernacular, especially the first language status of children.

During the past 25 years, in addition to schooling, technology has also affected language choice, in that there has been a significant change in the means available for people to communicate with distant correspondents. In the late 1980s, there were the options of letter-writing in English, or vernacular conversations by two-way radio, or making appointments to telephone from the Solomon Telekom office in Lata to other centers with phone service. Twenty years later there was a solar powered satellite internet station based at a local primary school with six computers available to the public. Internet access uses English as the primary language. Having the facility nearby allowed families on Graciosa Bay to communicate to relatives in Honiara without going to Lata. This made written communication more immediate, rather than taking weeks for letters to go back and forth, and it increased the need for both vernacular and English literacy skills. Internet access was followed by mobile telephone service in 2008, moving again toward communicating across distances by use of the spoken vernacular. But at the same time, outside of the provincial capital at Lata, there are to this day still no public utilities for grid electricity, no indoor plumbing, nor landline phone service in the Natügu-speaking areas.

The speed of these changes induces culture shock or stress. The oldest inhabitants, who were young people during World War II, have already seen their lives disrupted by conflicts not of their making. This explains why during the first Gulf war there was great concern and people asked, "Will the war reach us this time, too? Because the last time America went to war, it did."

Along with contact with the west came contact with western education. It appears that during the years Natügu-speaking students are in school, even primary school when they live at home, acquisition of the vernacular comes to a virtual standstill, due to the use of English textbooks and Pijin lectures. Dur-

ing this time parents and children have minimal contact, with the children going to school for the day and the parents to their gardens or places of employment. This creates a disparity between adult and teen grammars which the Natügu Language Team encountered during testing of some reading materials for clarity and naturalness. The middle-aged man who had agreed to help could not come, so a 13-year old girl who was passing by was recruited instead. It turned out that she did not command what should have been fairly common vocabulary, and was unable to answer simple questions after hearing a narrative read aloud.

Once schooling ends — after class six or further boarding school education — and the former students are again engaged in the language community all day, they again resume acquiring vocabulary and grammatical intuitions. However, given the age-based registers (Boerger 2007), it appears that the younger speakers, whose acquisition is put on hold during the schooling years, never do reach the same level of vocabulary and syntactic complexity as the next older generation.

There has also been a distinct departure from what Davenport describes for Santa Cruz men's houses and the practice today, which is also a factor in cultural stress. The men's houses are shared by a group of related males.

> From the men's house all distributions of food are made and received at the feasts accompanying maturation rites, marriages, funerals, ritual cycles, and entertainments. Thus, in addition to being a dormitory for adolescents and other single men, the men's house is a meeting place for the older men, a center for commercial transactions, a center for most social observances, and formerly, the home for its concubines [i.e. those shared by the group of men associated with the house BHB]. (Davenport 1964: 66–67)

But, on Santa Cruz today, the single houses are almost exclusively dormitories for adolescents and other single men. It is the practice for single males to move out of their parents' house and into a single house during their adolescent years. These accommodations often house all of the male cousins of a single family, an extended family or a village. Some youth build a house suited to one or two people and then either eat with each other or with their parents or other family members. They have no associated commercial or community level conventionalized social functions.

For the Reef Islands, Davenport describes how three factors contributed to the decline of men's houses:

a) the church replacing the cult houses, which were also the older men's domain, as the central focus of a village,
b) having government imposed from outside, and later by elected, representative leaders not connected to men's houses,
c) wage labor and the desire for western manufactured goods.

He writes, "This [latter] had far reaching effects on the men's house associations, for they were the centers for the production and exchange of local goods." (Davenport 1969: 167).

These same factors would have been at work on Santa Cruz, bringing instability to the role of the men's houses. Whereas previously the older married men would visit the younger ones in the men's house to interact and tell the cultural stories, even sleeping there with them on occasion, that is no longer the practice. The older men say it is because the single men make their houses too far off the ground and it is hard for them to climb up. The younger men say the older ones are not interested in interacting with them. We have observed that the older men appear to be unwilling to correct unacceptable behaviors of the younger ones, in part because the younger ones have better (western) educations. In light of the rapid change since World War II and again over the past forty years, it seems that the older men are no longer sure of their role in society and they also doubt whether the younger men are willing to listen to them. This illustrates another way that western education has undermined stability on the island.

6.5. *Examples of Natügu language change*

6.5.1. *Natügu phonological change.* The phonemic inventory of Natügu is represented in Tables 3 and 4. Table 3 contrasts Wurm's (1969) analysis positing 29 consonant phonemes with ours positing 14. Table 4 shows agreement on the oral vowels with differing inventories in the nasal ones. It is uncertain whether differences between his analysis and ours is due to a change in the languages themselves in the past 40 years, or in the analyses.

With regard to the consonants, Wurm's RSC phonologies showed a voiceless aspirated stop series in all three Santa Cruz languages, for which we

Table 3. *Natügu consonant phonemes*

Wurm (1969)												Boerger et al.			
p^w	p	p^h	p^j	t^w	t	t^h		k^w	k	k^j	k^h	p^h	t^h		k^h
b^w	b		b^j	d^w	d			g^w	g			^{m}b	^{n}d		^{ŋ}g
m^w	m				n		n^j	$ŋ^w$	ŋ			m	n		ŋ
	v				s							v	s		
					l								l		
w							j					w		j	

Table 4. *Natügu oral and nasal vowel phonemes*

oral vowels			nasal vowels					
Wurm plus Boerger et al.			Wurm (1969)			Boerger et al.		
i	ʉ	u			ũ			
e	ɵ	o			õ	ẽ	ɵ̃	
æ	ə	ɔ		ə̃	ɔ̃	æ̃	ə̃	ɔ̃
	a			ã			ã	

see little evidence in any of the languages. For Natügu, aspirated and unaspirated voiceless stops are in free variation, with aspiration favored in citation forms in initial position and selected to represent the phonemes (Boerger, forthcoming).

Both Wurm's palatalized and labialized phoneme series are better analyzed as consonant clusters phonemically, since they fit the maximum syllable template of $[CXV)]\sigma_{max}$, where X is either a consonant or a vowel.

While there is some degree of contrast between oral and nasal vowels, and a handful of minimal pairs exist, the phonemic load on the nasalized vowels, except within morphophonemic processes (Boerger, forthcoming), has been diminishing for at least the past 25 years. Like many languages in the Solomon Islands, Natügu's voiced stops are underlyingly prenasalized. The presence or absence of prenasalization distinguishes the three age registers: the oldest speakers always prenasalize, the middle aged speakers usually prenasalize, and the younger speakers do not routinely prenasalize, except in fixed forms.

Another change in the speech of the youngest group is their substitution of [i] for [ʉ] word medially, so that *nüngi* 'hair,' for example, is pronounced *ningi* instead. In all age dialects word final [ʉ] is deleted or is manifest as aspiration on voiceless stops, creating some closed syllables, as in the prohibitive *bëkü* 'don't', which may be realized as [ˈbə.kʰʉ] or [ˈbəkʰ].

6.5.2. *Natügu morphological change.* In addition to inalienable possession, Natügu has nine possessive classifier stems used for alienable possession by the oldest group of speakers. These are similar to what has been described by Wurm (1972) for the Malo village dialect. The categories include the items and things associated with the item. So for the 'drinkables' category, in addition to the liquids and watery fruits of the category, one also finds that drinking glasses and knives used to cut the watery fruits also use the 'drinkables' possessive classifier. The youngest group of Natügu speakers has simplified this by almost completely eliminating one category and significantly reducing another, in both instances substituting one of the two more general of the classifiers.

6.5.3. *Natügu lexical change.* Most of the lexical changes occurring in Natügu are substitutions of English or Pijin lexical items for those of Natügu, as well as simplification, and outright loss. Substitution is endemic in the numeral system of the language. While most young people could tell you the numbers through 100 if pressed, their normal practice is to use the English forms which they learn in school. Taking this loss into account, Natügu Language Project team members decided to spell out the ordinal number for each Psalm in the published version, so that public readings which announce chapter and verse numbers would be more fluent. Middle aged speakers are relatively comfortable with both systems, with the older people commanding more vocabulary for larger numbers than either of the two younger groups. Nearly everyone, however, uses English numerals for talking about money, and for that reason it was rather startling when a man from the youngest group gave his entire church treasurer's report using Natügu numerals. Almost no one could keep up with him as he rattled off the numbers.

While English or Pijin are commonly used for concepts for which the Natügu lexicon doesn't have a word, there are also instances of substitution. For example, *silâ* 'cup' is now only used by the oldest group for their carved wooden cups as well as those purchased at the store. The younger two groups use *cup* pronounced [kap]. Similarly, Natügu has two words for pillow, *tapu* 'wooden pillow without legs' and *tölunga* 'wooden pillow with four legs,' but nearly everyone uses English [pilo] 'pillow' for the soft, fabric covered pillows most people there now use for sleeping.

Natügu has also borrowed numerous words from the Polynesian languages of Temotu Province, such as *poi* 'pig' and *toki* 'knife' [Polynesian 'adze'], as well as an entire inventory of wind directions. These borrowed Polynesian wind direction terms are a shared borrowing in all of the RSC languages, as well as Teanu on Vanikoro Island (Boerger 2011; François, personal communication).

6.5.4. *Natügu syntactic change.* There is a verbal suffix *-ngö* in Natügu, which licenses an additional argument to whatever the normal valence for that verb is. For example, the verb *awi* 'thank' has two arguments, the thanker and the one thanked. In all three age dialects it requires the addition of *-ngö* in order to say what one is thankful for. The argument which is signaled by *-ngö* can be a simple or complex noun phrase.

In the speech of the youngest group, though, some verbs have been recategorized with regard to valence, extending the use of *-ngö*, such that it is now mandatory on some verbs for which the two older groups did not require it. For example, *atwëlö* 'send' selects both a direct and indirect object in the speech of the older two age registers, while the younger group only expects a direct object, and now requires *-ngö* for the addition of the indirect object.

6.5.5. *Natügu semantic change.* Lexical simplification and semantic merger is exemplified by the noun *ëtökipu* 'darkness' and adjective *nëlo* 'dark,' which have been merged by the youngest group, with *nëlo* being used for both functions.

As mentioned previously, Bënwë village was identified by Simons (1977) as the variant understood by the majority of people on Santa Cruz and for that reason it was targeted for vernacular literacy development. However, we have identified lexical items for which the standard dialect as spoken in Bënwë is deviant with regard to the rest of the regional dialects along Graciosa Bay. As the meaning in focus is clear from context, no one was aware of this pronunciation discrepancy until it was revealed when the NLP (Natügu Language Project) was standardizing spellings.

6.6. *Implications for Natügu language health — 5, written, safe*

We categorize Natügu as a 5 on the EGIDS scale, with various conflicting factors possibly pushing it toward 4 or 6a in the future. Because the language status is in transition, the most difficult EGIDS diagnostic question to answer is, "Are all parents transmitting the language to their children?" We find a distinct difference between the situation in the home area of the language and that in the urban area of Honiara — two distinct social networks. On Santa Cruz itself, the language is normally being transmitted to the children. But in Honiara, the national capital, even when both parents are speakers of Natügu, many are not passing on the vernacular. Similarly, in mixed-language marriages on Santa Cruz, while the home language may be Pijin, the children generally learn Natügu from their relatives and playmates. There are exceptions, however. A woman in Neo village on Tömotu Neo, north of Malo village, reports that this traditionally Natügu-speaking village is moving toward speaking primarily Pijin in more and more domains and that the parents are not teaching Natügu to their children. This means that this one Natügu village is similar to the situation found in most of the Nagu-speaking areas, where Pijin is clearly displacing the vernacular (Hoover 2008; Emerine 2009).

Satellite internet access mentioned above exhibits both language-enhancing and language-endangering factors. With the vernacular literacy rate increasing, email was being composed in Natügu to communicate with relatives in the capital. But on the other hand, the world wide web also strengthens English at the expense of Natügu. The 2008 introduction of mobile phones on the island means that islanders can phone their relatives in Honiara and communicate through voice channels in the vernacular. As a result, we predict a decrease in the frequency of vernacular emails, which has been a motivation for learning to write Natügu, a skill commanded by only a very

few. However, as suggested by Crystal (2000: 41–43), telephone contact could serve to preserve spoken Natügu as at least one of the languages being used by urban dwellers.

For the purposes of identifying an EGIDS number for Natügu, we have let the use of Natügu in the church domain balance losses in the absolute numbers of children learning it as a first language in Honiara and in the one village identified to date where children are not routinely acquiring it as their first language. On that basis, we answer this diagnostic question introduced earlier in this section with a provisional "yes". It is still the norm for children on Santa Cruz to learn Natügu in the home and use it in their interactions with each other. This "yes" answer leads to the further EGIDS question, "What is the literacy status?" The possible EGIDS answers are *Institutional*, *Incipient* and *None*, leading to scores of 4, 5 and 6a respectively on the EGIDS scale. While there are a large number of people with no vernacular literacy skills, vernacular literacy is increasing, making it inaccurate to answer none. At the same time, there are vernacular literacy lessons taught in several of the primary schools during class 6, which might incline one to assign it a 4 on the EGIDS scale, since there is institutional transmission in some schools. However, these lessons depend wholly on the Headmaster's desire and will, and teaching them is not official educational policy at the provincial or national levels, so a 4 is not warranted. Even so, it is the desire of the Solomon Islands Ministry of Education to be moving toward vernacular literacy in the earlier grades, so it could become official policy at some point in the near future and thereby strengthen the vernacular languages.

In 2011, then, the most accurate single value to assign to Natügu is a precarious balance on the EGIDS *Level 5, Written* category, which places it in the *Safe* category on the UNESCO scale. However, the opposing factors discussed above could push it toward either up to level 4, once a vernacular education policy is in place or down to level 6a if telephone use decreases vernacular literacy. At level 5 literacy is growing, with literacy skills primarily transmitted informally (Lewis and Simons 2010). The Natügu Language Project (NLP) provided beginning literacy materials to all the primary schools on Santa Cruz in which Natügu was the main language of the students (Boerger 2007). These materials included a primer (Bck et al. 2004) and graded reading materials (Boerger 2002), which transliterated earlier work (Boerger 1996) into the new orthography. In addition, the NLP sent literacy teachers around the island to hold one- and two-week transition literacy workshops for those already literate in English, to help them move toward reading and writing Natügu. Since it is easier to learn to read the language than to write it according to the NLP standard, a short English-Natügu and Natügu-English word list (Boerger and Boerger 2005) was provided with the literacy materials until a more extensive dictionary can be produced. Of the four RSC languages, Natügu is the most

viable for two reasons; it is one of the two largest of the four languages and the largest on Santa Cruz, as well as being the one in which the most successful, long term literacy efforts have taken place.

7. Nalögo [nlz]

7.1. *Dynamics within the Nalögo language group*

The authors are less conversant with the Nalögo situation since none have done focused fieldwork in the area. Our claims here are based on our own observations, reports by Santa Cruz inhabitants of all three languages, a 200 comparative wordlist for the four RSC languages, and five Nalögo texts written by a first language Nalögo speaker who is bilingual in Natügu. Nalögo speakers readily claim that their language is different from Natügu, and official local recognition of this distinction has existed since at least the 1976 census, and probably earlier. However, as noted above, it is only recently that Nalögo has been recognized *internationally* as being distinct from Natügu, with each language now having its own ISO code, rather than [stc] which they formerly shared.

The main Nalögo-speaking area is in the southwest part of the island, where the village with the highest prestige is Nea, presumably due to its larger size. As part of the Natügu Language Project, literacy teachers visited nearly all of the Nalögo-speaking villages, including Bibö in the southeastern part of the island, and held transition literacy classes to teach people to read Natügu. This was to serve as a stop gap measure until literacy materials are available in Nalögo. Villagers from Noole and Bibö have been the most interested in having Nalögo reading materials, and took the initiative to draft portions of the *Anglican Book of Common Prayer*, using the Natügu *Buk ngr Nzangiongr* 'Book of Worship' (Boerger 2000) as a source text, with the assistance of bilingual speakers.

Most Nalögo speakers marry within the language group, with the exceptions marrying primarily Nagu speakers, followed by Natügu speakers, over other language groups. Like the other RSC language groups, some Nalögo speakers also marry outside of the province.

7.2. *Nalögo language contact situation*

As noted in the Nagu section, the Nalögo language area is located between the Nagu language areas and Lata, the provincial capital. Speakers of these two languages have regular contact through the one or two market trucks which

make weekly trips from the villages on the south side of the island to market in Lata.

Nalögo speakers can partially understand Natügu, due to their closer linguistic relationship, which we might compare to the relationship between Spanish and Portuguese. However, they have more frequent interpersonal contact with the Nagu speakers with whom they share the southern side of Santa Cruz Island. Other contact relationships are similar to those described elsewhere on Santa Cruz Section 7.3.

The language competencies and domains of use for Nalögo speakers are parallel to those of Natügu speakers, each for their own language. There is, however, one exception worthy of note. Given that Nalögo speakers have less frequent and sustained contact with Lata than Natügu speakers, we expect that the levels of Pijin and English competency may be slightly less for Nalögo speakers, especially the middle-aged and older females. Furthermore, we expect that Pijin influence may be less than for the other RSC languages, if as we suppose, most of the staffing of local schools is by Nalögo speakers.

Since there are no published scriptures or other church materials in Nalögo, its use in the church is minimal. There have been attempts to use Natügu, while working on Nalögo materials, but these have mostly not been successful because the languages are not adequately mutually intelligible. Nalögo speakers say the Natügu songs and prayers have a familiar sound which makes it seem like they should be comprehensible, but they are not.

7.3. *Culture change and culture shock in Nalögo speaking areas*

Cultural breakdown, language loss and globalization also affect the Nalögo-speaking areas. This cultural identity disruption has had different manifestations in the Natügu- and Nalögo-speaking areas. In the Nalögo area the older men are reacting against changes in culture by inflexibly holding onto the old ways, while in the Natügu-speaking areas, younger, single men — who formerly would have been involved in warfare or enterprise — seem to have no precise role in society, and their disorientation takes the form of drunken and destructive behavior. We hypothesize that both disruptions are signs of culture stress, and that changes in language and culture are happening so quickly that the role of neither group is well-integrated into society today.

7.4. *Nalögo phonological inventory*

Our aim here is to compare our phonological findings based on Nalögo texts and word lists to what Wurm (1969) posited for Nalögo. Of the four palatalized

Table 5. *Nalögo consonant phonemes*

p^w	p^h	p^j	t^w	t^h		k^w	k^h
$^mb^w$	^mb			nd	$^nd^j$		^ŋg
m^w	m			n	n^j		ŋ
	v			s			
				l			
w					j		

Table 6. *Nalögo vowel phonemes*

Wurm plus Boerger et al.			Wurm (1969)			Boerger et al.		
i	ʉ (ü)	u			ũ			
e	ɵ (ö)	o			õ	ẽ	õ	
æ (ä)	ə (ë)	ɔ (â)		ə̃	ɔ̃	æ̃	ə̃	ɔ̃
	a			ã			ã	

phonemes Wurm posited for Nalögo, /p^j/, /t^j/, /d^j/, and /n^j/, we find evidence for all but /t^j/, which like Natügu could show up as /s/. Based on aural impressions only, Nalögo may have nasal off glides similar to those found in Nagu. These are not, however, written by native speakers, so their phonemic status is in doubt. The oral vowel phonemes of Nalögo are identical to those of Natügu. See Tables 5 and 6.

As he posited for Natügu, Wurm also gives a set of labialized stops and nasals at three points of articulation for Nalögo, but questions whether [d^w] and [$ŋ^w$] have phonemic status. A comparison of labialized forms in Natügu with Nalögo show some with exact correspondences and others where a labialized form in Nalögo corresponds to unlabialized forms in Natügu. Using [p^w] to illustrate, we find Nalögo [yɵp^wale] and Natügu [yɵpale], both meaning 'laugh' alongside Nalögo [p^wæ] and Natügu [p^wæ], with the same form meaning 'four' in both languages. Labialized velars do not exist in Natügu, nor can we confirm their existence in Nalögo.

7.5. *Implications for Nalögo language health — 6a, vigorous*

The EGIDS classification which most accurately reflects Nalögo is *Level 6a, Vigorous*, which would result in a *Safe* evaluation on the UNESCO scale.

Everyone in the language area speaks it and it is the first language of the children. During vernacular *Natügu* literacy courses which the Nalögo communities requested, Nalögo speakers were encouraged to try to pronounce Nalögo while reading Natügu (Boerger 2007). What minimal success readers experienced was dependent on partial passive bilingualism and is obviously not ideal. Further efforts are under way to provide this group with vernacular materials of their own.

8. Nagu [ngr]

8.1. *Dynamics within the Nagu language group*

This language is known as Nagu in the *Ethnologue,* or by some as Nanggu; however, many of its speakers prefer Engdewu, which is the name of an original village of the culture. After a time in Nagu village, due local to food shortages a group returned to settle near the original village in Memawa village. When Stephen Wurm studied Nagu in the 1960s, he simply took the name Nagu to represent the language.[6] Nagu speakers spread to several settlements on the eastern coast, where Äiwoo is the language of preference today. Here we use "Nagu", but are aware that some people prefer "Engdewu" as the language name.[7]

The Nagu language is spoken in several settlements on the southern coast of Santa Cruz. The largest Nagu-speaking village is called Nagu. Nabalue is next, with around 200 people divided into two settlements. A large village, Memawa, is on top of a bluff and a small village Menepmaotu in the inlet below it. Although Nabalue is the general name for these two villages, Memawa is the name used throughout Santa Cruz to refer to this combined settlement, and will also be used in this article to refer both settlements. Furthermore, a small group of speakers lives in Nambwan Kä Ilöpi which means 'Big Bay'. Finally, perhaps 50 Nagu speakers live in Honiara.

There are no attested dialectal differences, perhaps due to the small number of speakers who regularly traffic between villages. Speakers in Memawa claim that they speak the most correct form of Nagu, and some people in Memawa told us it was impossible to get good language data from speakers in Nagu village.

8.2. *Nagu language contact situation*

A number of changes in the Nagu language probably result from changes in society over the past fifty years. In particular, schools were introduced in the

villages, which both gave sanction to, and opportunity for, early acquisition of Solomon Islands Pijin. This, coupled with the historical pattern of intermarriage between speakers of different languages and the increasing ability for islanders to travel across the Solomon Islands, has adversely affected the use of Nagu.

Intermarriage with speakers of other languages has been common throughout Santa Cruz for many generations. In the past, women were brought from other villages into the Nagu speaking villages for marriage (Davenport 1964); however, due to overpopulation on nearby Reef Islands, and the general increase in reliable government shipping, it is now common for both women and *men* to marry into Nagu-speaking villages. Many marriages occur between Nagu speakers and Äiwoo speakers from the Reef Islands or with the Nalögo speakers next door. Elders in Memawa report that in the past couples with different first languages would teach both languages to their children (Emerine 2009). But there is now a lower expectation that a man who marries into Nagu-speaking villages will learn the language of his wife's village, contributing to Nagu language loss.[8]

The expectation that most students will attend schools has also contributed to a change in language transmission practices within the past several generations. Prior to independence in 1978, Pijin was not part of the schooling of the oldest generation of speakers, because schools during that era were run almost exclusively in English by expatriates. So the current middle-aged speakers of Nagu were the first generation to learn Pijin in school, where it is the language of wider communication at mixed-language secondary schools around the country. When any of these current middle-aged speakers married someone with another mother tongue, it was unnecessary to learn each other's language, since both marriage partners had already learned Pijin in school. Consequently, instead of teaching their children the parents' languages, Pijin is spoken within the family, and their children acquire it as their first language. This is in turn reinforced by its use not only in secondary schools, but also in the local primary schools, with the end result being a decrease in Nagu competence.

Since the Nagu speaking villages are situated at a distance from the other language areas, with few exceptions, most Nagu speakers do not encounter speakers of other languages on a day-to-day basis, other than those who have married into the village.

But this does not mean there is no outside contact at all. Sporadic contact with speakers of other languages occurs in the following contexts. Memawa inhabitants have contact with Nalögo speaking villages a few hours away by foot, or may choose to walk to Lata or Graciosa Bay which are six hours away. Weekly contact is provided by a market truck, which takes women from Memawa to Lata to sell produce. It is also possible to obtain transport on a market

truck operated by Nalögo speakers. Furthermore, if medical care is needed, there is a health clinic half way between Memawa and Lata, home of the provincial hospital. These medical facilities also necessitate contact with other languages.

The more distant settlements of Nagu Village and Nambwan Kä Ilöpi are primarily accessible by boat and visits between them and Memawa are rare due to high fuel prices. It takes a day to walk from Memawa to Nagu, but in good weather, people can also paddle. But despite their relative isolation from other Nagu speakers, Nagu villagers are also not without some outside contact. In fact, Nalögo has been spoken in Bibö village on the small island of Tömotu Noi across the passage from Nagu village, since at least since the time of Davenport's and Wurm's research (Davenport 1964; Wurm 1969). Äiwoo speakers also live on Tömotu Noi, as well as in the eastern settlements discussed above. A further opportunity for contact comes when passenger or cargo ships dock at the wharf in Nagu and an impromptu market is set up to serve the ship's passengers and crew.

8.3. *Domains of language use in Nagu-speaking areas*

As a result of extensive intermarriage with speakers of other languages, the Nagu language situation is more complex than those of other RSC languages, where most couples speak the same first language and pass it on to their children. Nagu community couples commonly speak different languages. Language use and practices in Nagu follow the same age groupings attested for Natügu. The information was gathered through observation, as well as by reports of competencies by the speakers (Emerine 2009).

The oldest age group (60+), especially the women, almost exclusively uses Nagu; but some of the men also know Pijin, as well as some of the neighboring languages.[9] The middle age group (31–59) is competent in Nagu and Pijin, and will use Nagu with other Nagu speakers and Pijin with both speakers of other languages and with the youngest age group on occasion. Along with this, they often know one or more of the neighboring languages and may use one of them to communicate. We divide the youngest age group into two. Nearly all are fluent in Pijin and it is often their preferred language. But there are differences within this group. Those aged 10 and above understand and speak more Nagu than their parents realize, but those under 10 speak Nagu to a far lesser extent than their elder brothers and sisters. Some of these youngest children heavily mix Pijin with Nagu. As a result, Pijin impacts a number of pronunciation and vocabulary choices the youngest speakers make when using Nagu. This is significant because these children are first learning Pijin at home, rather than at school. English is comprehended to some degree by those who have

encountered it through schooling or work. However, as reported for Natügu, it is rarely spoken, but is used mainly for reading and writing.

The competencies in each of the languages correlate with the languages used in each domain. Nagu is only spoken in the home, but it is not the exclusive home language since many households also speak Pijin (Hoover 2008; Emerine 2009). As already mentioned, many in the Nagu area marry speakers of other RSC languages, as well as Vaeakau-Taumako language, with these languages also present in the home domain.

Other than its usage in the home domain — where it competes with Pijin and neighboring languages — Nagu is not used in any other domain, except generally for church announcements. Since there is a Natügu New Testament (Boerger 2008) and worship book (Boerger 2000), Nagu speakers have had the option of using Natügu as a church language. However, is not a viable option since most Nagu speakers do not understand or read Natügu. In addition, some people legitimately feared that use of Natügu in church would further degrade Nagu and contribute to its demise.

Pijin is the language of choice for the other domains such as education and business, and being the smallest language on Santa Cruz, Nagu is never employed in national nor provincial government, where English and Pijin are the main players. Since there is not yet a written form of Nagu and since English is taught in the schools, only English is used for writing and reading.

Speakers of other languages consider Nagu to be difficult[10] (Emerine 2009). Because of this negative attitude, and being the smallest language in the area, outsiders rarely learn Nagu. Most Nagu speakers can understand and speak a little Nalögo and Äiwoo, but this does not hold for Natügu due to lack of interactions. The low regard that others have of their language will have inevitably affected Nagu speakers' own attitude toward it and may account, in part, for the continued weakening of Nagu. It should be noted that this situation probably makes the Nagu speakers the most linguistically skilled people in the area, for when communicating with those from other languages, Nagu speakers either speak Pijin or the interlocutor's language.

8.4. *Culture change and culture shock in Nagu-speaking areas*

A breakdown of the language since the fieldwork by Davenport and Wurm can be tied to a general breakdown in traditional culture due to contact within the country and an awareness of international cultures as exhibited on English language movies. Recently a mobile phone tower was erected on Tömotu Noi island close to Nagu, and many people in that village now have mobile phones. There are also plans for a tower to serve Memawa and nearby villages.

As stated previously, one of the consequences of contact has been the use of Pijin in more and more of the domains previously reserved for Nagu. Education and the use of Pijin have changed ideas regarding what languages a child needs to know to be successful. Since English is critical for employment elsewhere in the country, that, too, creates a pressure to displace Nagu. As a result, the traditional pattern of old men passing knowledge to the young men at the local *nämwe* 'single [men's] house' is no longer practiced. Most young men go away to school and when they return, they tend to use their mother tongue less and Pijin more.

8.5. *Examples of Nagu language change*

It is in the nature of language to change. Except for a superficial treatment in a small number of articles (Wurm 1969, 1970, 1972, 1976, 1978), and a word list (Tryon and Hackman 1983), there is no existing material in or about Nagu. Thus, our comments in this section are based on our field observations and reports from the speakers themselves.

First, there are stories about two main dialects, one spoken in the old village of Ewawe, situated a little south of today's Memawa, and the other originally spoken on the east side of the Nabalue river in the previously mentioned ancient village of Engdewu. The Ewawe variety has been forgotten, and is still alive only in traditional stories and the memories of a handful of elders. Engdewu's dialect was the predecessor of today's Nagu language.

8.5.1. *Nagu phonological change.* The phoneme chart for Nagu deviates slightly from that of its neighbors, the notable difference being the postnasalized voiceless stops. These nasal off glides are predominantly voiceless nasals phonetically, with work on-going to determine their status.

The number of labialized stops has decreased to just the bilabial ones (Hoover 2010). Following Wurm, the Nagu labialized stops are analyzed as phonemic, and like the other Santa Cruz languages Nagu shows central vowels. We propose a phonemic inventory with 21 consonants and nine vowels for Nagu, as shown in Tables 7 and 8.

Concerning the set of palatalized sounds, /pʲ/, /tʲ/, /kʲ/, /bʲ/, /mʲ/, /nʲ/, and /lʲ/, proposed as phonemes by Wurm, we find a few examples of [mʲ], [nʲ] and [lʲ] in our data, plus possibly [tʲ] and [dʲ]. Members of the oldest generation normally pronounce /t/ as [s] before /i/, a pattern found in the other RSC languages, as well. However, this is seldom found among the younger generations who would prefer /tiââlu/ [tʲɔ:lu] as opposed to /sââlu/ 'come', providing evidence for another palatalization and a phonological distinction between generations. Furthermore, we include the phoneme /ʤ/ in the chart

Table 7. *Nagu consonant phonemes*

p^w	p^h	p^n	[p^j]	t^h	t^n	[t^j]	k^h	k^n
$^m b^w$	$^m b$			$^n d$		$^n ʤ$ [d^j]	$^ŋ g$	
m^w	m		[m^j]	n		[n^j]	ŋ	
	v			s				
				l		[l^j]		
w						j		

Table 8. *Nagu vowel phonemes*

i	ʉ	u
e	ɵ	o
æ		ɔ
	a	

above, while also realizing that it might be a palatalized allophone [d^j] of /d/ before high vowels. Similarly, depending on stress placement, words like [opiä] ‘stone’, might just as accurately be transcribed [op^{j}ä], yielding a possible token for Wurm’s /p^j/. More research is needed, but we include these palatalized sequences in phonetic square brackets in the chart to facilitate comparison with the other three RSC languages and with Wurm’s 1969 statements.

Wurm (1969) commented that voiced stops are normally prenasalized. This is changing in Nagu, as described for Natügu. Many speakers use prenasalization almost exclusively, while some speakers prenasalize in certain contexts but not others, and some do not prenasalize at all. This change predicts the disappearance of prenasalization in the future. The phoneme /v/ varies between [v] and [β].

The vowel chart in Wurm (1969) seems to be largely the same as in Table 8. The main exception is that Wurm lists /ə/, while we are uncertain of the phonemic status of schwa. Wurm (1969) also lists nasal counterparts to four of the vowels, but today nasalization no longer carries a phonemic load. There is significant free variation in vowels, especially with regard to degree of nasalization and vowel length. Wurm states that “vowel length is phonemic, and long vowels are frequent” (1969: 63). While vowel length does appear in the language, it is not clear whether it should be analyzed as phonemic or a sequence of two identical vowels; more data is needed.

8.5.2. *Nagu morphological change.* As in many other societies, older speakers regularly complain about the younger generations no longer knowing their mother tongue properly. Elders report grammaticalizations based on what they judge as misunderstandings of the grammar. For instance, there is a two-way distance-based demonstrative system in Nagu, for which *ke* is the proximal form and *kâ* is the distal one.[11] If, for instance, a person hears someone outside his house, s/he can ask 'Who's there?', with a distal demonstrative form in the question. A common answer among youngsters is *kâ ni* 'It's me there', while in the elders opinion they should have said *ke ni* 'It's me here'.

Like the other RSC languages, Nagu is a synthetic language with a relatively complex verbal structure. It is reported that young people in certain contexts mistake inflectional morphology as being part of the word root. An example is the word forms *putä* 'step into a canoe' and *puinii* 'step out of a canoe'. The verb root is *pu-* 'step', and *-tä* and *-inii* are directionals designating movement 'into' and 'down/out of', respectively. What happens is that children reanalyze the whole word form *putä* to be a basic root. Thus, when they want to say 'step out of a canoe', they use the form *putäinii*.

8.5.3. *Nagu lexical change.* The older generation also complains that young people use too many Pijin words in their speech. Many of them are words for Western concepts, such as *lada* 'ladder', *bol* 'ball', *tebol* 'table' and *äma* 'hammer'. Furthermore, today the vernacular numerals are often replaced by the Pijin/English ones. We have seen that this happens in other RSC languages as well — and in fact in many Pacific languages (Crowley 2004) — and the reasons are probably the same: the English numbers are taught in school, and modern business is carried out with English or Pijin numbers.

Grammatical items are usually members of a closed class of words, and borrowing into such a class is more restricted than lexical borrowing in Pacific languages (Crowley 2004: 52). However, in Nagu, three commonly used conjunctions have been borrowed from Pijin: *bikos* 'because' and *bat* 'but' have replaced corresponding words and *so* 'so' has replaced a full phrase. The substitutions appear in the same sentence position as the indigenous Nagu conjunctions they have replaced. These loans are not used exclusively by younger speakers, but are also common among older speakers. There appears to have been a wholesale substitution of the Pijin words for the Nagu ones, without changing the grammatical structure of the language.

Pijin and English are not the only languages from which Nagu has borrowed lexical items. Words from other RSC languages have been used for so long that Nagu speakers have forgotten the original words. For example, *peiki* 'knife' is a Nalögo word, but every Nagu speaker uses it and even mentions it as the Nagu word for knife. However, one older woman who is considered knowledgeable in the original Nagu language, explained that *tali* was the original

Nagu word for knife, but it is also a swear word in Äiwoo. Because of the significant number of marriages between Nagu and Äiwoo speakers, we were told that Nagu speakers now use *peiki* so that they do not offend Äiwoo speakers.

8.5.4. *Nagu syntactic and semantic change.* Due to the shorter duration of the Nagu fieldwork, we cannot give an account of syntactic and semantic change, other than to affirm that such change is reported by the speakers themselves. We expect further research to reveal the specifics of such changes.

8.6. *Implications for Nagu language health — level 7, shifting*

While some of the other RSC languages have been put into use in school and church activities to some extent (Boerger 2007), Nagu has not yet made headway into any new domains. It is not the language of education, media, or religion. Nor is it used outside the local community for "intergroup interactions" like trade, social or other communicative functions (Lewis and Simons 2010). Therefore, Nagu's current identity function is *Home* according to EGIDS Key Question 1, (see Section 4 for EGIDS questions).

However, since most parents are not transmitting the language to their children, the answer to the EGIDS Question 3 about parental transmission to all children has to be *no*, characterizing "incipient or more advanced language shift" (Lewis and Simons 2010: 115). The youngest "proficient speakers" using the Nagu language ". . . for full social interaction in a variety of settings" (Lewis and Simons 2010: 114) are the parents from about age 18 and older. While there are children who grow up and learn their ancestral language from their parents, increasingly Nagu is not the first language of the children today. This leads us to rate Nagu at EGIDS *level 7, shifting*, which corresponds to the UNESCO rating *definitely endangered*, as per Table 2.

This classification is supported by the fact that Nagu is the mother tongue to only a couple of hundred speakers, as shown in Table 1 (DeBrujin and Beimers 1999),[12] making the Nagu group a small percentage of the total population on Santa Cruz. We do not know how long Nagu has had a small number of speakers, but the numbers recorded for 1999 were about the same as those of the 1976 census, indicating essentially no new speakers in a period when all the other languages increased significantly. We also understand that the language has always been reported to be small (Wurm 1969; Davenport 1964). Despite the likely scenario in which Nagu speakers always have lived in a multilingual environment — suggesting that the languages of their more powerful neighbors have been in common use in many public domains — until recently, they have successfully passed their ancestral language on to the next generation. The difference is that today Nagu is endangered in the home domain due to the

increased use of Pijin, both when Nagu speakers marry speakers of other languages and when students attend school (Emerine 2009). Unless there is a change in the current pattern of language transmission, Nagu will no longer be spoken within the next two generations since many children are growing up without learning it or desiring to.

On a worldwide basis, it is more common for multiple languages to be used in the home domain without causing endangerment than for there to be a monolingual situation. However, echoing Fishman (1991), Lewis and Simons (2010) agree that the loss of intergenerational language transfer is a critical component in language loss — the one which has operated in Nagu's decline.

This *definitely endangered* status makes it an urgent candidate for language documentation and description. To date, the only Nagu data are a short wordlist (Tryon and Hackman 1983) and passing mention by Wurm (1969, 1970, 1972, 1976, 1978). Even though many speakers have given up on their language, the community has welcomed researchers (Emerine, Hoover and Vaa) who value the Nagu language. Hoover (2008) and Emerine (2009) discuss the causes of Nagu language loss, while Vaa is involved in ongoing research, including a fragmentary documentation of Nagu including a word list, some hours of audio recordings, and the beginning stages of a grammar sketch.

9. Äiwoo [nfl]

Recent linguistic work on Äiwoo is limited to fieldwork of a few months' duration by Næss, Vaa and Benedicte H. Frostad in 2004 and 2005. As a prerequisite for being allowed to do this work, the linguists to a large extent had their consultants chosen for them by local authorities. This entailed working primarily with older males of high social standing who were considered qualified and had the necessary authority to pass on information about the language. The authors have also consulted with others[13] in an attempt to provide a description with the kind of time depth for the language change situation as discussed for Natügu.

9.1. *Dynamics within the Äiwoo language group*

To an even greater extent than the Santa Cruz languages, the Äiwoo speech community in the Reef Islands is relatively isolated from the rest of the Solomon Islands. While Santa Cruz has twice weekly flights and is visited every four to six weeks by cargo and passenger ships, there is no airfield in the Reef Islands and not all ships which call in at Santa Cruz continue on to the Reef Islands. Traveling the 70 kilometers from Lata airfield to the Reef Islands

otherwise involves a hazardous journey in small fiberglass boats with outboard engines. There is also no email station in the Reefs comparable to the one at Kati School on Santa Cruz, though a man of British origin, who owns a trade store on Pigeon Island, will make his personal email available to pass messages. However, few people in the Reefs know how to use a computer, so this usually means passing on oral or handwritten messages to be keyboarded by the owner. Mobile phone coverage has recently also become available in the Reefs. It should be noted that the only electricity available is provided by a few generators and solar panels, so charging phones could present a challenge.

As evident from Table 1, Äiwoo is the largest of the RSC languages by a considerable margin. Indeed, there are communities of Äiwoo speakers in settlements in the northeastern and eastern parts of Santa Cruz, and it has replaced Nagu in some of the eastern areas. In the Reef Islands, there are two main dialects, Ngäsinuwe (Fenua Loa) and Lomlom; the differences between these appear to be mainly lexical, and the varieties are fully mutually comprehensible. We know little about the variation between age groups.

9.2. *Äiwoo language contact situation*

Speakers of Äiwoo have a long tradition of contact with other languages of Temotu Province, particularly the Polynesian language Vaeakau-Taumako (Pileni), speakers of which live in the Outer Reef Islands as well as in the nearby Duff Islands. Traditionally, Vaeakau-Taumako speakers were shipbuilders, traders and navigators, building large ocean-going sailing vessels which they used to make trading voyages throughout the region. This practice continued until the mid-20th century and has left a considerable number of Polynesian loanwords both in Äiwoo and in other languages of the area. Many Polynesian nouns have been borrowed with an accreted definite article *te-* (e.g. *toponu* 'turtle' < *te fonu*, and *tepeka* 'flying fox' < *te peka*), leaving them readily identifiable as being of Polynesian origin, and many if not most speakers are aware of the status of these as loanwords.[14]

At present, many of the male Äiwoo speakers, middle-aged or above, with whom we have worked claim to have some knowledge of the Vaeakau-Taumako language. The exact dynamics of situations of communication between speakers of the two languages is something we have had little opportunity to study systematically, but we have observed interactions where both languages appear to be used, with frequent code-switching on both sides. Pijin is also used, but we do not know what determines the choice of language in such situations.

It should, however, be noted that Äiwoo speakers, at least in Lomlom, only rarely visit the Vaeakau-Taumako-speaking islands, even though the nearest of

the Outer Reef Islands are only a 20–30 minute boat ride away. It appears that there is simply no reason to visit these small and marginal islands, though no hostility towards the neighbors seems to be implied.

More frequently, Polynesian speakers visit the Main Reefs, among other reasons, to purchase staples and trade goods from these larger and more fertile islands. Intermarriage is fairly frequent and more Vaeakau-Taumako women marry into Äiwoo households than vice versa, possibly due to the relative poverty of the Vaeakau and Taumako islands. Previously, when moving into her husband's community a woman was expected to abandon her own language and use that of her new home. But more recently, spouses from outside Äiwoo speaking communities rarely learn to produce Äiwoo, because they find it difficult, even when they can sometimes comprehend Äiwoo. A community of Reef Islanders living in the White River area of Honiara includes speakers of both Äiwoo and Vaeakau-Taumako, and Pijin is in frequent use there.

9.3. *Domains of Äiwoo language use*

As noted above, Äiwoo is the largest of the RSC languages, and it is the home language for nearly all households in the main Reef Islands. Most people we encountered also have some command of Pijin, with fluency increasing in the lower age groups who use it in school. As described for Natügu above, middle-aged to older males tend to have a better command of spoken and written English than many of the younger generations, due to higher educational standards during the British Protectorate, which ended in 1978.

The literacy situation is complicated because the orthography for Äiwoo has gone through several stages. Originally place names and personal names had consistently followed a simple phonemic orthography. Then in the 1970s, two men, at least one of whom worked as a language consultant for Professor Wurm, designed a different writing system. These men had some minimal training in linguistics, and booklets were printed to enable the teaching of this alphabet in school. These booklets were necessary because this revised orthography introduced phonetic detail which was not always consistently indicated, even in the training materials. The effect was to change the spelling of many people's names. The lack of other reading materials led to a fairly patchy dissemination of the first revised orthography to the community. The existence of two orthographies led to opposition to the phonetic spelling system and a division within the community regarding how Äiwoo words should be spelled.

This lack of consensus continued until 1988 when John Rentz of SIL did a literacy survey of the language group which revealed that even those who favored the phonetic writing system could not consistently spell according to its

complex rules. Therefore, in consultation with other Äiwoo speakers, he reintroduced a phonemic system similar to what had existed before, based on the spellings documented in voter registration lists. This revised phonemic system was used in Bible translation and literacy materials produced by the Äiwoo language project team and there was a significant increase in vernacular literacy rates as a result. But it also reignited discord between those who favored the phonetic alphabet and those who saw the benefits of the revised system. In 2006, Næss proposed a compromise orthography which was arrived at in consultation both with the Bible translation team and one of the designers of the phonetic-based alphabet. She used that orthography to publish a book of texts collected and transcribed in the islands. Then 400 copies of this book were sent to the islands, in the hopes that it could be used to teach literacy in local schools. However, we have had no opportunity to visit the Reef Islands since its publication, and do not know how the book was received locally.

Given these four orthographies, it is difficult to say how many people are literate in any of them, or how many actively write their language. Anecdotally however, an effort by Næss to elicit information on vowel length by means of minimal pairs revealed that many teenagers seemed uncomfortable reading even isolated words in Äiwoo, (though the presence of a microphone and an outside linguist probably contributed to this).

English and Pijin are the main languages used in church, an important social arena, though speeches and sermons may include some Äiwoo sequences, and announcements are invariably made in Äiwoo. In the village of Tuwo on Ngäsinuwe (Fenua Loa), hymns in Äiwoo written by a local composer are in frequent use; we have no information about the extent to which these are also used in other villages. So far, the only Äiwoo Scripture in printed form is the Gospel of Mark and the English Bible is the version in use.

Village level meetings and gatherings are held mainly in Äiwoo. A 2005 meeting in the Nenubo men's house to discuss Næss' request to be permitted to carry out fieldwork, with both the linguist and her visiting father present, took place entirely in Äiwoo; Pijin may be used if it is important that visitors understand, but in general Äiwoo predominates in such contexts.

The breakdown of language competencies based on age and gender parallel those described above for the other RSC languages.

9.4. *Culture change and culture shock in the Äïwoo speaking area*

The changes described for the Natügu community in Section 6.4 certainly also hold for Äiwoo, though as noted above, technical innovations are somewhat slower to reach the Reef Islands than Santa Cruz. Traditionally, adult males would spend much of their time in the men's houses, where young unmarried

men lived and were educated by their elders in matters of language, culture and tradition, but which were also centers of political discussion and alliance-building. The family home was the domain of women, and married men would spend time there mainly to eat and sleep (Davenport 1969). These days, the men's house functions mainly as a village meeting hall and occasional accommodation for male visitors, though there is talk of trying to revive its function as an arena for traditional education.

The influence of schooling on language acquisition, described for Natügu in Section 6.4, is not known to us. One culturally relevant effect, however, is the need for parents to engage in economic activities which will provide a cash income, rather than just the traditional subsistence household, in order to pay the modest school fees;[15] as opportunities for earning an income are extremely limited, this is a constant concern, and probably contributes to more people leaving the islands to find work, taking them away from the Äiwoo context and into a Pijin one.

The current availability of basic medical services, limited though they are in the islands, has contributed to a higher child survival rate, and to a longer life-span of adults than in the past. While this is, needless to say, an improvement, it has led to increasing overpopulation on these small islands where resources — including available land to grow food — are extremely limited. This in turn leads to more people moving away from the islands to earn a living, often traveling to Honiara where they are inevitably obliged to use Pijin or English.

9.5. *Äiwoo language change*

9.5.1. *Äiwoo phonological change.* The phonological system described by Wurm (1969) has changed slightly, mostly by reanalysis as opposed to changes in the language. The vowel charts here and in all of Wurm's work are identical. In 1969 he questioned /k^{h}/ and /g^{w}/, then excluded the former and included the latter in subsequent publications (1972, 1992a, 1992b). He earlier included /p^{w}/ and /m^{w}/ (1969, 1972), but later excluded them (1992a, 1992b) in which article the labialized consonants are restricted to the velars plus /b^{w}/. We follow the latter here, though it should be noted that the extent to which labialized segments are phonemic, as opposed to sequences of phonemes, is still not conclusively established. Diachronically at least, the labialized sounds seem in many cases to stem from a reduced rounded vowel following a labial consonant, but there are synchronic contexts where the contrast is clearly phonemic, e.g. *bää* 'lean' versus *bwää* 'sea'.[16] See Table 9 and 10.

Regarding palatalized segments, Wurm (1969) proposed Äiwoo /p^{j}/, /d^{j}/, and /n^{j}/, and one can see these still in our chart, assuming that /ʤ/ is parallel to

Table 9. *Äiwoo consonant phonemes*

	p^h	t^h		k^w	k^h
b^w	^{m}b	^{n}d	^{n}ʤ	^{ŋ}g^w	^{ŋ}g
	m	n	ɲ	ŋ^w	ŋ
	v	s			
		l			
w			j		

Table 10. *Äiwoo vowel phonemes*

i		u
e		o
æ		ɔ
	a	

Wurm's /d^j/ and /ɲ/ is parallel to his /n^j/. In an Äiwoo wordlist we also find forms like *piau* 'suck' which could have yielded [p^{j}au] and the palatalization he heard in his early fieldwork.

The situation with respect to the distribution of *t* and *s* preceding /i/ seems to some extent to be the opposite of that described above for Nagu. Older speakers frequently pronounce sequences written *'si'* as [ti] or [t^{j}i] as in *siväle* [tivæle] 'wife'; there are also occasional examples of [t] pronunciation in words where no surface /i/ is currently recognized, i.e. *sapulâu* [t^{j}aplɔu] 'men's house'. Impressionistically, younger speakers seem to use [s] in these contexts, though our data from the younger age groups is limited.

9.5.2. *Äiwoo lexical change.* Older speakers routinely complain about the younger generations using far too many Pijin words in their speech, and Pijin vocabulary does seem to be present in the speech of most speakers, including the middle-aged ones. Even in the 1990s, a speaker who did not mix Pijin vocabulary in his Äiwoo speech was considered noteworthy (John Rentz, personal communication). In fact, such loanwords occur even in the oldest material available to us, recorded in the 1970s and 1980s and retrieved from Stephen Wurm's data in the archives at the Australian National University. It is likely that the frequency of such loanwords has increased in recent years, as more speakers have been exposed to influence from English and Pijin, as described above for Natügu, but we have no statistical data to support this assumption.

At the same time, it should be noted that Äiwoo has a set of highly productive nominalizing prefixes which can be used to create terms for new items on the fly, and the use of which appears to be a viable alternative to borrowing. In speech elicited with videoclips showing a number of Western items, speakers constructed nominalizations like the following: 'girding thing' for 'seat belt', 'cutting nail of a person's hand thing' for 'nail clipper' and 'climb up thing' for 'ladder'.

It is impossible to know whether the awareness of being recorded by a linguist interested in their language leads to a conscious effort to produce Äiwoo forms rather than loanwords. We did, however, observe spontaneous use of nominalizations, such as 'good-smelling stuff', used by a woman when presented with a gift of perfume.

9.5.3. *Äiwoo morphological change.* The claims in Wurm (1991, 1992a, 1992b) of morphological simplification among younger speakers in certain domains are difficult to assess, for several reasons. First, Reef Islanders report that Wurm never actually visited the Reef Islands, and worked elsewhere, mainly with a few adult male speakers, so presumably his claims are based on their judgments, rather than on data he collected in context. Secondly, some of the systems which are said to be eroding among younger speakers were in fact incorrectly analyzed, such as the "noun class systems" Næss (2006). Given that the systems in question are not noun classes, but a combination of nominalizing prefixes and reduced forms of nouns in compounds, some of which may have grammaticalized into a kind of nominal classifiers, it is difficult to evaluate Wurm's claims that the "noun class system" is eroding (Wurm 1992b: 151–154).

A similar misanalysis applies to certain properties of nominalized verbs or clauses of the type mentioned above. In these, Wurm's alleged "special verbal noun suffixes" are in fact oblique pro-forms reflecting the fact that an additional argument has been introduced into the structure. These vary in form according to the person/number properties of the element they cliticize to, rather than reflecting person/number of the subject of the nominalization, as Wurm assumed (Næss 2006: 281–283). The claims that younger speakers use such structures incorrectly must be assumed to be influenced by an incomplete understanding of the structures.

Our own data from 2004 ranges in consultant age from a man in his seventies to a young woman of around twenty, though with a strong predominance of speakers at the older end of this scale. While it is therefore difficult to assess the relative frequency with which structures such as those discussed above are used, when they are used there appears to be no difference in the actual structures by speakers of different ages. For example, parallel structures meaning 'the place where they (two) lived' and 'the place where you are going' were

produced respectively by one of our oldest consultants in his seventies and by the youngest consultant in her twenties. The claim that younger speakers in many cases choose Pijin loanwords instead of nominalizations (Wurm 1991: 557) may well be correct, and might be expected on the basis of the increasingly important role of Pijin in the community; but the cause of this does not appear to be that speakers cannot correctly produce nominalizations, as Wurm suggests.

9.5.4. *Äiwoo syntactic and semantic change.* Given that the Äiwoo fieldwork lacks the time depth of that for Natügu, we are not able to present specific examples of syntactic and semantic change, other than to affirm that such change is reported by the speakers themselves.

9.6. *Implications for Äiwoo language health — 6a vigorous, safe*

Äiwoo, the largest of the RSC languages, is reportedly expanding at the expense of other local languages, and as such it appears to be in no immediate danger of extinction. The limited opportunities for economic development available to the Reef Islanders mean that, even though they are increasingly aware of the existence of an alternative, more urban and consumer-oriented lifestyle, and to some extent desire it, changes happen only slowly.

That said, it is clear that there has been change over the past four decades, and that it continues even in these remote islands. Education in Pijin and English clearly has an impact on several levels: directly in changing the linguistic situation in the islands and the language acquisition patterns of young speakers, and indirectly in contributing to an orientation of young people away from traditional culture and lifestyle and towards seeking employment and opportunities in more urban areas.

In their EGIDS, Lewis and Simons speak of four "identity functions" for a language: *Historical, Heritage, Home* and *Vehicular* (2010: 113) where the latter is defined as a language which "is used to facilitate communication among those who speak different first languages" (Lewis and Simons 2010: 115), i.e. used as an L2 by speakers of other languages. In spite of occasional use in this manner, for example with Vaeakau-Taumako speakers, and other such pockets of use, Äiwoo cannot be said to be a language of wider communication. Similarly, the language does not qualify as being effectively used in written form or, in the case of *Educational*, to be transmitted through a system of public education. Rather, the most accurate assessment places Äiwoo's identity function as "Home", meaning that the language is used for daily oral communication in the home domain. The next relevant question is that of language transmission. Most parents living in the islands are still transmitting the

language to their children, while speakers living in Honiara may grow up understanding Äiwoo, but not producing it. Even as many as twenty years ago, Reef Islander high school students based in Honiara who were on holiday with their Äiwoo-speaking parents in the Reef Islands felt embarrassed when they could not respond to Rentz's attempts to engage them in conversation in Äiwoo (John Rentz, personal communication).

The final relevant EGIDS question regards literacy status, and here Äiwoo seems to be sitting at the border between 'Incipient' and 'None'. As noted above, there are some who are able to write Äiwoo, though the lack of reading materials and institutional support, and the lack of a standard spelling system, means that even those who are in principle literate in their language have few opportunities to read or write it. So it is better to assign a more conservative estimate and place the language at Level 6a, which still corresponds to 'Safe' on the UNESCO scale.

10. Evaluation of the EGIDS metric

For this article, the EGIDS scale (Lewis and Simons 2010) has allowed us to assign values to the four RSC languages showing their vitality relative to one another at the present time. However, their current EGIDS status and corresponding UNESCO rating does not correlate with what some have projected (Krauss 1992) as the long-term outlook for these languages.[17] The metric could be made more useful by the inclusion of additional factors to aid in distinguishing between "safe" languages which are expected to remain that way for the foreseeable future and those which are more likely to die. For example, one factor which is not incorporated into this scale is the absolute size of the language group. If we accept Krauss' (1992) claim that languages with 6,000 or fewer speakers are likely to die by the end of this century, and that those with 6,000 to 300,000 are in danger of dying in the same period, then the EGIDS grid gives an artificially "safe" reading for three of the four RSC languages, two of which have fewer than 6,000 speakers.

And at the same time, we realize that the absolute number of speakers may be less relevant for Pacific Island communities, which have always been relatively small. So even though smaller communities have a harder time standing up to outside pressures and influences than larger ones, this is an area where small language communities have been the norm.

While not initially designed for the purpose of prioritizing language documentation needs, such scholars have made use of the GIDS and UNESCO scales to establish whether a particular language is endangered or not. The Extended GIDS could make a greater contribution in two possible ways. First, it might include an additional column (or perhaps two) as a diagnostic for long

term vitality or urgency of documentation. This rating might be arrived at by addressing several additional factors such as absolute numbers of L1 speakers, how many of these are also L2 speakers, the proportion of L1 (and L2) speakers in the total population of the province or country, the relationship to neighboring languages and their EGIDS rating, and possibly environmental factors. We offer these as areas for further exploration, since this is not the place for developing the details of such a plan.

11. Conclusion

11.1. *Language change and its causes*

It can be difficult to trace the motivation behind many linguistic changes, and to determine whether they represent a real threat other than in the minds of the elder generations. However, we have shown above that the major area of change in the Reefs-Santa Cruz languages is the lexicon, where even function words are losing terrain to Pijin and English equivalents.

Thus, our data demonstrate that one of the main factors undermining the vitality of the RSC languages is the significant growth in the use of Solomon Islands Pijin as a LWC, which has come about through increased contact with speakers of other languages due to improved transportation, Pijin use in the school classrooms, and intermarriage with speakers of other languages. This is especially true for Nagu, where Pijin could completely replace the Nagu vernacular in the near future. Furthermore, globalization, the use of the world wide web, and the desire for economic improvement have all been factors pushing people to leave the language and culture of their home islands and move to Honiara where Pijin and English are more useful for meeting their goals. While the sociological situation is unlikely to change, implementation of vernacular education for those in the earliest grades, which is under consideration by the Solomon Islands Ministry of Education, could make a significant positive impact on the vitality of all four languages, Nagu being the most critical.

11.2. *Pros and cons for language vitality*

In our discussions of the four RSC languages, we identified factors which promote language vitality as well as a number of factors which can adversely affect it. Of the latter, some factors are within reasonable control of the language groups, while others, like the environmental factors mentioned below, are acts of nature and outside the realm of human volition.

The distinguishing factor which puts Natügu at a higher level of safety than the other three RSC languages is its status as a written language. The degree of literacy development there is a direct result of the involvement of expatriate linguists who lived in the area for more than 15 years, and outside support of some kind can also therefore be said to be a positive factor. Since being a written language warrants a higher place on the EGIDS scale, then whatever promotes vernacular literacy can be said to mitigate against language loss. Boerger (2007) reported on factors which have led to stronger and wider Natügu literacy skills. Some of these alluded to above were a new orthography, literacy materials and courses, and vernacular literacy in the schools.

The next level up the EGIDS scale is education. To our knowledge, Natügu is the only one of the four RSC languages where even informal vernacular literacy classes have been regularly taught. However, as the Solomon Islands Ministry of Education moves toward vernacular education in the coming years, it is possible that the other three languages will experience the same strengthening as Natügu.

Even higher up the EGIDS scale is the use of a language as a trade language or language of wider communication (LWC). Historically there was passive bilingualism in the RSC area. Today Äiwoo sometimes serves as an LWC between it and Vaeakau-Taumako speakers, but we expect that Pijin will eventually displace it in this role. This means that level 4, Educational, is the highest that any RSC language can hope to achieve, and that efforts at strengthening these languages would be most effective by addressing literacy and vernacular education.

In addition to these cultural and economic factors, environmental concerns are highly relevant for the future of the Äiwoo language due to its location on a coral atoll. Any environmental crisis which makes survival there difficult drives an increasing number of people away from the Reef Islands, which in turn makes it difficult for them to maintain their language. The Santa Cruz archipelago is situated on the Pacific ring of fire, and Tinakula, an active volcano, is only 40 kilometers southwest of the Reefs and 40 kilometers north-northwest of Santa Cruz. A major eruption could be catastrophic. Furthermore, cyclones and other severe events can lead to the destruction of drinking water and food crops, while periods of drought can have similarly adverse effects. Any rise in sea levels would mean a further reduction in the already very limited fertile land areas. While such environmental events inevitably lead to difficulty for all of the RSC languages, the situation in the Reefs has the most precarious balance.

We have identified ways to strengthen these languages before they become moribund or nearly extinct, which can also be applied to other languages. By pursuing such strengthening, the urgency for immediate documentation in the world's languages would decrease, and as a consequence strengthen the com-

munities and cultures, as well. But a metric similar to Landweer's (2000) Indicators of Ethnolinguistic Vitality, is still needed — one which is applicable cross-linguistically and which has the ability to project future language viability so that language and culture documentation efforts can be more accurately prioritized.

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Notes

1. The data for the different languages were collected under different circumstances, and for some languages we have more data than for others. Boerger lived in the Natügu-speaking area for sixteen years between 1987 and 2008 and has written the Natügu and Nalögo sections. Næss, Vaa, and Benedicte H. Frostad did Äiwoo fieldwork during parts of 2004 and 2005. Næss and Vaa have prepared the Äiwoo portions. Emerine and Hoover did fieldwork in Nagu for six weeks during 2008, and Vaa did Nagu fieldwork in 2009. Vaa, Emerine and Hoover undertook the Nagu section.
2. When Rentz surveyed the languages on Utupua around 1990, only one language was in use. The other two languages were not used, for only two or three speakers of each were still living. He found three viable languages on Vanikoro, but Francois (2009) notes that two of them are also moribund.
3. We are grateful to Lewis and Simons for access to a pre-publication version of their work while writing this article. We are also grateful to Paul Lewis for his comments which improved our work. The content has also significantly benefited from editing by Landweer and Unseth, the editors of this volume. As always, any errors or misrepresentations remain our responsibility.
4. Wurm (1969) included seven representative varieties of the RSC languages which he grouped as follows, with current language names in parentheses: Reefs (Äiwoo), Malo and Nelua (Natügu), Menjembelo, Nemboi, Nooli (Nalögo), and Nanggu (Nagu). In our discussion of the phonology charts of these languages, Malo is being equated with our Bënwë data and Wurm's Nemboi data is being used as the closest to our Nea data for Nalögo.
5. ISO 639-3 codes give each language a unique three letter code.
6. As a matter of fact, in the introduction to his (1969) article Wurm spoke about "the Naggu *dialect* of the one [language] located in south-eastern Santa Cruz" (Wurm 1969: 48, our emphasis). Later in the article this becomes the Nagu *language*.
7. Vaa is conducting further research on the preferred language name in 2011. If consensus settles on Engdewu, a request will be submitted for a change in the language name for ISO code [ngr].
8. In Papua New Guinea, this same factor was identified by Landweer (2006: 169, 322), who found that intermarriage with Anuki speakers adversely affected the vitality of the Doga language.
9. We use the generic label of "neighbor languages" because Nagu speakers may use one of the neighboring languages in some interactions. In Memawa, Nalögo is the most frequently used neighbor language followed by Äiwoo. In Nagu, Äiwoo is the most commonly used

neighbor language, followed by Nalögo and then Vaeakau-Taumako, a Polynesian language of the Reef Islands. More research is needed to discern the level of knowledge speakers have of neighbor languages.

10. It is surprising that Natügu and Nalögo speakers find Nagu so unusual, since while Nagu may have a few unusual sounds, the phonological system and in fact the grammar itself is quite similar to that of Natügu and Nalögo.
11. The demonstrative system in Nagu is rich and these are only two of the forms.
12. Emerine (2009) based on her 2008 fieldwork estimates the number of Nagu speakers to be closer to 400. It is unclear whether this is due to the ten year difference in her data and the 1999 census or some other factors. We hope that 2009 census data will give further insight into this discrepancy, but results were regrettably not available before going to press.
13. The authors would like to thank John Rentz for input on the Äiwoo section, which has provided some time depth for our claims. He resided in the Reef Islands for most of the period from 1987 through 1992, and made further visits in 1997, 1999, 2001 and 2004.
14. Natügu speakers are also aware that words beginning in *te-* like 'Temotu', are Polynesian borrowings.
15. As noted above, this may no longer create the same pressure as in the past now that there is free, government sponsored education through Form 3.
16. Compare these cognate words for 'sea' to Nalögo *pwöla* and Natügu *pöla*.
17. Editors' note: see Landweer's article in this volume for a discussion of Krauss' statistics and the Melanesian context.

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